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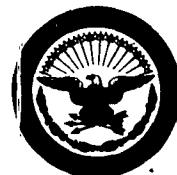
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ABSTRACTS FROM EAST EUROPEAN  
SCIENTIFIC AND TECHNICAL JOURNALS

No. 190 ✓

(Biology and Medicine Series)

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ABSTRACTS FROM EAST EUROPEAN  
SCIENTIFIC AND TECHNICAL JOURNALS

No. 190

- Biology and Medicine Series -

This report consists of abstracts of articles from the East European scientific and technical journals listed in the table of contents below.

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BULGARIA

L. MAKOV and K. KIROV, Department of General Biology (Katedrata po obshcha biologiya) Head (rukovoditel) Prof R. POPIVANOV, VMI, Sofia.

"Studies of the Sex Chromatin in Healthy Individuals."

Sofia, Eksperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962; pp 7-11.

Abstract [English summary modified]: Studies of 100 buccal mucosal cells from each of 300 healthy Bulgarian men aged between 18 and 49 revealed presence of sex chromatin in 0 to 3% (average 0.19%); in a comparable group of 300 women, 9 to 32% (average 17.44%). Graph, 3 cytograms, 3 tables; 3 Soviet, 1 Bulgarian and 11 Western references.

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BULGARIA

Ier. STOICHKOV and Ch. NIKOLOV, Institute for Scientific Research in Hematology and Transfusion (Nauchno-issledovatel'skii institut po hematologii i krovoprelivaniye) Director (direktor) V. SERAFIMOV-DIMITROV, Sofia.

"Changes in Phagocytic Activity of Leukocytes Following Exchange Transfusion with Blood-Dextran Mixture."

Sofia, Eksperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962; pp 11-16.

Abstract [English summary modified]: In 6 dogs, exsanguinotransfusion with donor blood - dextran mixture; phagocytability studied of injected killed *Staphylococcus aureus* at 0, 6h, and 1, 3, 6, 10, 15, 20 and 30 days thereafter. Phagocytic activity was lowest 6 days after the transfusion, nearly normal 30 days after it. Graph, 2 photomicrographs, 2 tables; 4 Soviet, 2 Bulgarian and 3 Western references.

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BULGARIA

Kr. BERICHEV, Department of Pathological Anatomy (Katedra po patologicheskoi anatomiya) Head (rukoveditel) Prof B. KURDZHIEV, VMI, Sofia.

"Effect of Multivitamin Complex on the Pathological Changes Due to Chlortetracycline."

Sofia, Ekperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962; pp 16-21.

Abstract [English summary modified]: Rabbits treated with chlortetracycline ("Stomycin") 20 mg./Kg./day plus multivitamin complex for 10 days had changes in intestinal bacteria and viscera same as the rabbits treated with chlortetracycline alone, indicating that these changes are not primarily due to hypovitaminosis. Three photomicrographs, 1 Soviet reference.

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BULGARIA

Te. STOICHEV, Department of Pharmacology (Katedra po farmakologiya) Head Prof I. MIKOLOV, VMI, Sofia.

"Biochemical Mechanism of the Antidotal Effect of Potassium Ethylxanthogenate."

Sofia, Ekperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962; pp 21-27.

Abstract [English summary modified]: Warburg respirometry of rat liver tissue in the presence of Salycyan (organic Mg compound): 0.00164 M depresses tissue respiration 70 to 90%; this is completely antagonized by potassium ethylxanthogenate in a 10:1 molar ratio to the Mg compound. Graph, 3 tables; 3 Soviet, 2 Bulgarian, 7 Western references.

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BULGARIA

As. TOMKOV, G. SHEIKOVA and D. STRAKHILOV, NIEM [Nauchen institut po epidemiologiya i microbiologiya, Scientific Institute for Epidemiology and Microbiology,] and VMR [Abbreviation not identified] Military Hospital (Voenna bolnitsa pri VMR); Director (direktor) of NIEM; Vl. KALAIIDZHIEV; Head (nachalnik) of Military Hospital T. IVANOV.

"Studies With Penicillin-Resistant Staphylococci."

Sofia, Eksperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962;  
pp 27-31.

Abstract [English summary modified]: Study of 53 penicillin-resistant and 28 -sensitive *Staph. aureus* strains, all clinical coagulase-positive isolates: type of hemolysis, fibrinolysis, phosphatase, catalase, mannite, gelatin, egg yolk, pigment formation, dehydrogenase, necrotizing property. Results lead to conclusion that penicillin resistance acquisition is correlated with complex changes of the enzymatic activity as well as pathogenicity regardless of the presence of the antibiotic. Three tables; 2 Bulgarian and 3 Western ref's.

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BULGARIA

G.K. SAEV and K. Iv. MARKOV, Department of Biochemistry (Katedra po biokhimiya) Head (rukoveditel) E. KOICHEV; and Department of Microbiology and Virology (Katedra po mikrobiologiya i virusologiya) Head Prof Sv. BURDAROV, VMI, Sofia.

"Electrophoretic Studies on Bacteria. Part 5. Correlation Between Electrokinetic Potential and Acid Agglutination."

Sofia, Eksperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962;  
pp 31-36.

Abstract [English summary modified]: Comparison of the isoelectric point determined by acid agglutination (i.e. pH of maximal agglutination) and electrophoresis (pH of null electrokinetic potential) in 60 strains of *B. anthracis* and unspecified number of *Staphylococcus aureus* strains. Among the latter species, penicillin-resistant strains are agglutinable over a wide pH range, presumed due to loss of hydrophilic properties. Both tests are necessary to determine isoelectric point of bacterial surface. Seventeen graphs; 5 Western, 2 Soviet, 3 Bulgarian ref's.

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— 3 —

BULGARIA

R. OVCHAROV, Department of Pharmacology (Katedra po farmakologiya)  
Head (rukoveditel) Prof V. PETKOV, Institute for Graduate Medical  
Studies (ISUL), Sofia.

"Pharmacologic Studies of Some Tertiary Morpholinoethyl Derivatives  
of the Barbituri Acid."

Sofia, Ekperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962;  
pp 36-42.

Abstract [English summary modified]: Pharmacologic comparison of  
I. (3-morpholinoethyl)barbital, II. (3-morpholinoethyl)phenobarbital,  
III. (1,3-di-morpholinoethyl)phenobarbital and IV. (6-deoxy, 3-morphe-  
linoethyl)phenobarbital with barbital and phenobarbital in mice, rats,  
cats, rabbit ileal strips. The 4 new derivatives are not hypnotic,  
their toxicity is lower; they have some atropine- and papaverine-like  
effect. Four kymograms, 4 structures; 2 Bulgarian and 2 German  
references.

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BULGARIA

G. KOTEV and A. ANDREEV, Military Medical Academy (Visschi voennomed-  
tinskii institut) Chief (nachalnik) Docent A. MALEV.

"Effect of Organic Phosphates on the Course and Outcome of the Acute  
Radiation Disease."

Sofia, Ekperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962;  
pp 42-47.

Abstract [English summary modified]: Whereas all 10 dogs irradiated  
with a single dose of 600 r died within 2 - 3 weeks, only 2 died of  
the 15 which received tabun oil solution 10% of LD<sub>100</sub> (0.05 mg./Kg.)  
daily s.c. for 10 days starting 15 minutes after irradiation. Also,  
only 2 died of the 5 receiving 5% of LD<sub>100</sub> for 15 days. Leukopenia in  
tabun-treated dogs was hardly less intense than in controls at 8 to  
21 day post-irradiation; hemoglobin did remain higher all along;  
cholinesterase was low as expected from tabun but symptoms possibly  
less. Presumably organic phosphates and radiation partly involve the  
same enzymatic mechanism but in an antagonistic fashion. Table, 4  
graphs; 3 Soviet, 1 Bulgarian, 1 British reference.

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BULGARIA

A. TSANEV and G. DASHEV, Department of Endocrinology and Metabolic Diseases (Katedra po endokrinologiya i bolesti na obmanata) Head (rukovoditel) Prof Iv. PENCHEV [presumably VMI Sofia.]

"Serum Protein Electrophoresis in Experimental Hyper- and Hypothyroidism."

Sofia, Eksperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962; pp 48-51.

**Abstract** [English summary modified]: Serum electrophoretic and thyroid histologic studies in 3 groups of 10 rats each: a. treated parenterally with thyroxine daily 100 gamma for 25 days; b. methylthiouracil ("Alkiron") 100 mg./day, and c. controls. After 25 days, determination of total serum proteins; albumin; and alpha, beta and gamma globulin. In the 3 groups, these were respectively: a. 34.6; 50.2; 6.8, 12.6, 30.4. - b. 24.5; 50.1; 8.9, 18.6, 22.41. - c. 100; 47; 6.8, 12.6, and 36.41 (all figures percentage.) Histologic patterns in the thyroxine and methylthiouracil groups were as anticipated and reported in the literature. No discussion of the presumed significance of the

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Sofia, Eksperimentalna Meditsina i Morfologiya, Vol 1, No 3, 1962; pp 48-51.

findings reported. Two photomicrographs; 3 electrophoresis patterns; 2 Western references.

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## BULGARIA

T. TASHCHEV, V. GRUNCHAROV and Iv. TSCHEV, Department of Gastroenterology and Dietetics (Katedra po gastroenterologiya i dietatika) Head (rukoveditel) Prof T. TASHCHEV, and Department of Pharmacology of ISUL (Katedra po farmakologiya pri ISUL), Head Prof V. PETROV

"Clinical and Experimental Studies with the New Bulgarian Preparation Biliregulin."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 3-10.

Abstract [English summary modified]: Studies in rats and dogs, and in 38 patients, of "Biliregulin" choleretic preparation containing extractives of strawberry, cabbage, black turnip; "lipocaine" (lipotropic "hormone" from pancreas), dehydrocholic acid, glucose and starch. Generally doubles bile secretion upon peroral administration, action lasts for 2 hours. Table, 5 diagrams; 6 Bulgarian (incl. thesis) 1 Soviet unpublished, 1 Czech, 2 Western references.

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## BULGARIA

V. IONCHEV, Department of Psychiatry (Katedra po psichatriya) Head Prof K. CHOLAKOV, VMI "I.P. Pavlov", Plovdiv.

"School, Homework and Incidence of Neurosis."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 11-16.

Abstract [English summary modified]: Questionnaire analyses and individual examinations of 1800 Plovdiv grammar and high school students in 1961 indicated a correlation between neurotic traits and length of time required to do homework. Both parameters increased in higher grades. There is vicious circle - more homework breeds more fatigue, decreasing ability to finish homework. Table, 13 Bulgarian, 9 Soviet and 3 Western references.

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## BULGARIA

R. TOKIN, Department of Obstetrics and Gynecology (Katedra po akusherskovo i ginekologiya) Head (rukovoditel) Prof I. SHCHUKINA, VMI, Sofia.

"Infertility Due to Exogenous Tuberculosis During Puberty."

Sofia, Svremenna Meditsina, Vol 13, No 12, 1962; pp 16-21.

Abstract [English summary modified]: Analysis of 2500 case reports of visitors to the infertility clinic 1958-1961: 585 of these women had had tuberculosis of some type during their youth. Comprehensive review of causes of sterility as sequelae of tubercular processes by analysis of primary and secondary causes. Three Bulgarian, one Soviet and 1 French reference.

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## BULGARIA

St. MIKOLOV, Department of Propedeutics of Internal Medicine (Katedra po propedeutika na vnutrennoi bolести) Head Prof Iv. IONKOV, VMI, Sofia.

"Pleural Effusions in Patients with Heart Disease."

Sofia, Svremenna Meditsina, Vol 13, No 12, 1962; pp 21-26.

Abstract [English summary modified]: Analysis of 500 cardiovascular deaths and of 100 patients with heart disease; correlation of pleurisy types found. In necropsy cases, 20% had hydrothorax, 6.5% serofibrinous pleurisy, 24% pleural adhesions. Most of this occurs by way of pulmonary infarct. Incidence among clinic patients is much lower. Tuberculosis is rare in all. Six tables; 4 Bulgarian, 4 Soviet and 8 Western references.

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BULGARIA

D. KHUBANOVA, D. STOICHEVA and V. PENCHEV, Central Rest Home of the TsSPS (Obedineniya pochiven dom na TsSPS) [Abbreviation not identified; apparently a labor union] Head Physician (glaven lekar) D. STOICHEV, Bankya.

"Treatment of Hypertension at the Central Rest Home TsSPS in Bankya."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 27-31.

Abstract [English summary modified] Description of the conditions of treatment: 2 patients per room, sleep 9 - 10 hours per night, good routine. 100 patients treated with baths, diet, massage, physiotherapeutic procedures ; drugs (sedatives, rarely hypnotics) in 5. Excellent results in 23, good in 39, fair in 20, none in 18. Discussion of stage of disease. Most are intellectual workers, not manual. Eleven Bulgarian references.

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BULGARIA

I. TEMKOV and Zh. DASKALOV, Department of Psychiatry (Katedra po psichatriya) Head Prof G. UZUNOV, VMI Sofia.

"Haloperidol in the Treatment of Manic States."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 31-36.

Abstract [English summary modified]: Haloperidol in 10 female and 5 male patients in the manic phase. Generally effect was faster than with chlorpromazine but relapses were correspondingly rapid too. Severe parkinsonian side effect in 8 could be counteracted with trihexyphenidyl. Some decrease in blood pressure (to 95/65 and 95/70) in 2. Thirty references: 1 Polish, rest Western, mostly Belgian.

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BULGARIA

V. MIKHAIEV, Regional Oncologic Dispensary (Okrushen onkologischen dispanser) Head Physician (glaven lekar) N. KOLEV, Burgas.

"Preventive Oncologic Examinations in Women Above Thirty."

Sofia, Suvremenno Meditsina, Vol 13, No 12, 1962; pp 36-39.

Abstract [English summary modified]: Data are given of the activity of this unit 1956 - 1961. About 50,000 women, or about 70% of the population in this territory, are examined each year. The incidence of cancer and pre-cancerous changes found has been increasing, from 5 and 761 among 48,720 women seen in 1956 to 28 and 2092 among the 53,751 seen in 1961. Procedural details and difficulties are enumerated and discussed. Table.

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BULGARIA

D. MATLIEV, [Affiliation not given.]

"Importance of First and Second Phase of ESR with Vertical and Sloping Test Tubes."

Sofia, Suvremenno Meditsina, Vol 13, No 12, 1962; pp 39-42.

Abstract [English summary modified]: Analysis of the details of the course of the erythrocyte sedimentation rate process, with tables showing breakdown in 100 patients with inflammatory diseases. If the ESR test tube is kept in a sloping position, the diagnostic evaluation of exact stage as well as degree of pathologic process is facilitated. Two tables, 3 Soviet, 3 Bulgarian (incl. thesis) and 4 Western references.

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**BULGARIA**

P. BOYANOV and M. TSEKOV, Institute for Emergency Medical Aid  
(Institut za burza meditsinska pomoshch) "N.I. Pirogov", Chief  
Physician (glaven lekar) Khr. ZDRAVKOV [Sofia.]

"Hepatic Syndrome Due to an Acute Allergic Process."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 43-44.

Abstract [English summary modified]: Description of syndrome of hepatitis with full-blown jaundice in man of 27 following allergic rash and fever attributed to ingestion of fried fish. Clinical details of the rapid course of multisymptomatic condition ending in uneventful recovery. Three Bulgarian and 1 Western reference.

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**BULGARIA**

V. KOLARSKI, City Hospital (Gradska bolnitsa) Head Physician D.  
VASILEV, Rostevgrad.

"Acute Poisoning with DDT."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 45-46.

Abstract [English summary modified]: Two workers aged 58 and 67 respectively in error used DDT powder (estimated 30 to 45 Gm. of a 50% DDT preparation, i.e. 7.5 to 11.5 Gm. pure DDT per person) instead of flour for sauce thickener in frying canned food; rapid severe syndrome mainly gastrointestinal yielded to symptomatic treatment with analgesics; uneventful recovery in a few days. One Soviet and 4 Western references.

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BULGARIA

M. POPOV, Chief (Zaveshdashch) Pediatric Department (detsko otdelenie)  
City Hospital (Gradska bolnitsa) Gorna Oryakhovitsa.

"Poisoning with Apricot Kernels."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 47-48.

Abstract [English summary modified]: Two cases of cyanide poisoning due to ingestion of apricot kernels in small children aged 4 and 1.5 years respectively are reported and discussed. The younger child could not be saved, probably because of failure to try and induce vomiting immediately when found.

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BULGARIA

Em. A. STOYANOV, Department of Surgery and Urology (Katedra po khirurgicheskim bolesti s urologiya) Head (rukovoditel) Prof G. POPOV [presumably at Sofia.]

"The Problem of Reanimation."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962; pp 49-56.

Abstract [English summary modified]: An authoritative, pedagogic review of newer findings and basic principles in resuscitation procedures: mouth-to-mouth breathing, parenteral stimulants and analeptics; means to strengthen the appropriate vital functions as a harmonious whole. Three photographs, 2 diagrams; 6 Bulgarian, 2 Soviet, 8 Czech, 20 Western references.

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BULGARIA

A. N. TSANEV, Department of Endocrinology and Metabolic Diseases  
(Katedra po endokrinologiya i bolesti na obmyanata) Head (rukodavatel')  
Prof. Iv. PENCHEV [VMI Sofia?]

"Current Views of the Role of the Pineal Gland."

Sofia, Svetskata Meditsina, Vol 13, No 12, 1962; pp 56-59.

Abstract: A general review of the literature of the epiphysial extracts,  
mostly old data: antigonadotropic, antithyroid, hemostatic principles;  
role in carbohydrate metabolism, aldosterone secretion. Three Western  
and 2 Rumanian references.

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POLAND

OSOWIECKI, Henryk and PAKULA, Roman, Department of Microbiology and Hygiene (Zaklad Mikrobiologii i Higieny), AM [Akademia Medyczna, Medical Academy] in Warsaw (Director: Prof. Dr. R. PAKULA)

"Studies on Staphylococcal Desoxyribonuclease. IV. Purification and Some Properties of Staphylococcal DNA-ase."

Warsaw, Medyczna Doswiadczenia i Mikrobiologia, Vol 15, No 1, 63, pp 1-11.

Abstract: [Authors' English summary] Several methods were employed in the concentration of staphylococcal DNA-ase: adsorption on various adsorbents, elution, and precipitation with lead acetate and trichloroacetic acid. The last, followed by precipitation with acetone, appeared best for the preparation and purification of the DNA-ase. The preparations are heat-resistant and are activated by  $Ca^{++}$ . Although it does not act on RNA, it appears to have some properties in common with RNA-ase. The 7 references contain 3 Polish, 3 English, and one French source.

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POLAND

RABCZYNSKA, Felicja, KUDELSKI, Zygmunt, and NEISLOWA, Paula, Department for Testing Sera and Vaccines (Zaklad Badaania Surowic i Szczepionek), PZH [Panstwowy Zaklad Higieny, State Institute of Hygiene] in Warsaw (Director: Prof. Dr. H. NEISEL)

"Reactivity of Mice Upon Immunization and Infection with Typhoid Bacilli. II. Serologic Reactions Following Use of Live or Killed Bacteria, or Their Extracts."

Warsaw, Medyczna Doswiadczenia i Mikrobiologia, Vol 15, No 1, 63, pp 13-21.

Abstract: [Authors' English summary modified] The level of H, O, and Vi agglutinating antibodies was studied in infected and non-infected, immunized and non-immunized mice. Agglutinin formation was noted only in mice injected with live bacilli, stronger for non-immunized than for immunized mice, with highest titres obtained with the H, and lesser with the O and Vi antigens. There was no difference whether the bacilli were introduced in saline or sanguogen medium, and high agglutination maintained only while they were present. One each Polish, French, and Scandinavian refs.

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[ ] POLAND

STEPIEN, Ryszard, Clinic of Infectious Diseases (Klinika Chorob Zakaźnych), AM [Akademia Medyczna, Medical Academy] in Łódź (Director: Prof. Dr. J. CHRZANOWSKI)

"Studies on Experimental S. Typhi Murium Infection in Mice." Warsaw, Medycyna Doswiadczalna i Mikrobiologia, Vol 15, No 1, 63, pp 23-28.

Abstract: [Author's English summary] Mice were infected with various doses of S. typhi murium bacilli. The dynamics of the resulting bacteremia was observed, as well as the macro- and microscopic lesions in the spleen and liver of the experimental animals. It could be shown that the infection (strain PZH-293) was subacute or chronic. A correlation was also found with the reactivity of the reticulo-endothelial system which could be checked by microscopic examination of the spleen and liver tissues. Of the 7 references, one is German, 2 French, and 5 English.

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[ ] POLAND

FRYGIN, Czesława, Bacteriology Department (Zakład Bakteriologii), State Institute of Hygiene ( Państwowy Zakład Higieny) in Warsaw (Director: Prof. Dr. E. WOJCIECHOWSKI)

"Electrophoretic, Immuno-electrophoretic, and Chromatographic Analysis of the Soluble Antigen of Rickettsia Prowazekii."

Warsaw, Medycyna Doswiadczalna i Mikrobiologia, Vol 15, No 1, 63, pp 29-42.

Abstract: [Author's English summary modified] Phoretic analyses of the soluble antigen revealed a slow-migrating but immunologically active, and fast-migrating but inactive fractions, differing in total nitrogen and phosphorus content. Spectrophotometric and chromatographic analyses revealed no presence of nucleic acid, the presence and identity of at least 17 amino-acids, and the identities of sugars contained in the isolated polysaccharides. There are a few Polish and German references among the predominantly Western sources cited.

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POLAND

TUROWSKI, Gabriel, Plant for the Manufacture of Sera and Vaccines (Wytwórnia Serów i Szczepionek) in Krakow.

"Influence of Time of Growth on the Antigenic Properties and Yield of *Bordetella Pertussis*."

Warsaw, Medycyna Doswiadczalna i Mikrobiologia, Vol 15, No 1, 63, pp 43-46.

Abstract: [Author's English summary] *B. pertussis* suspensions from 1-day cultures showed the highest antigenic potency as measured by the Evans-Perkins test (Walecki modification), and dropped with each day of further growth. Yield of the cultures checked on particular days of growth varied with the strains. Using a modified solid Cohen-Wheeler medium with addition of charcoal, best growth was found at 48 hours, and could be prolonged up to 72 hours for antigenically "strong" but poorly growing strains. The existence of a correlation between the time of growth and antigenic properties as well as of yield of *B. pertussis* has been confirmed by statistical methods. There are 5 references, of which 3 are English, and 2 are Polish.

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POLAND

RYKONSKA, Bożena and SADŁOŃKI, Leon, Virology Department (Zakład Mikrobiologii), PMW [Państwowy Zakład Higieny, State Institute of Hygiene] in Warsaw (Director: Prof. Dr. F. PRZEMYSŁOWICZ).

"The Gamma-Inhibitor of Normal Horse Serum. II. Protective Properties of the Serum and Its Fractions Against Infection of Mice and Tissue Cultures with Singapore Strain of Influenza Virus."

Warsaw, Medycyna Doswiadczalna i Mikrobiologia, vol 15, No 1, 63, pp 47-54.

Abstract: [Authors' English summary modified] Authors confirm the findings of Cohen and Balyarin that horse serum protects mice against A<sub>2</sub> Singapore strain of influenza virus and that the particularly strong protection is afforded by the  $\gamma$ -globulin fractions of the serum obtained either by precipitation with  $\text{CO}_2$  gas or by paper electrophoresis. When tested in CEF monolayers, no difference in protective properties of the substances was found, and authors assume that only minute amounts of the inhibitor are required for protecting the tissue cultures. 2 Polish and 4 English refs.

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**POLAND**

SAWICKI, Leon and RYKOWSKA, Renata, Virology Department (Zaklad Wirologii), PGH [Panstwowy Zaklad Higieny, State Institute of Hygiene] in Warsaw (Director: Prof. Dr. F. PRZESMYCKI).

"The Guinea Pig and White Rat Serum Inhibitors as a Possible Factor of Natural Resistance of these Animals to Infection with Certain Strains of Influenza Virus."

Warsaw, Medycyna Doswiadczenia i Mikrobiologia, Vol 15, No 1, 63, pp 55-63.

Abstract: [Authors' English summary modified] Authors demonstrated that like the horse, guinea pigs and white rats are immune from birth to influenza viruses, showing specific (H1N1) antibodies and thermostable inhibitors in the serum. (Exceptions are Singapore strain for guinea pig, and influenza C for rats). Preliminary investigations suggest that inhibitors reach respiratory epithelium of lung from the blood and neutralize the virus particles sensitive to them, as evidenced by the disappearance of both factors from the lung tissue. Investigations are being continued. 4 of the 17 references are Eastern bloc.

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**POLAND**

LARSKI, Mieczyslaw, Wistar Institute, Philadelphia

"Intratypic Serodifferentiation Test (IST) of Polio Viruses in He-La Cell Monolayers, Preliminary Report."

Warsaw, Medycyna Doswiadczenia i Mikrobiologia, Vol 15, No 1, 63, pp 65-68.

Abstract: [Author's English summary] Application of He-La cells for the IST is very advantageous because it provides better uniformity of test conditions. Reading of results, especially of the plaque-diameter is easier and more accurate than in monkey kidney cells. 7 strains of Type 1 Polio Virus were tested, and their antigenic relationship with the prototype strain checked. All the 11 references are in the English language.

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**POLAND**

WIERZCHOWSKI, Piotr, BABROWSKA, Renata, and PONIERSKI, Monika, Department of General Chemistry (Zaklad Chemii Ogolnej), AM [Akademia Medyczna, Medical Academy] in Warsaw.

"Respiration of *Streptomyces* *aucrefaciens* During Submerged Fermentation."

Warsaw, *Medycyna Doswiadczenia i Mikrobiologia*, Vol 15, No 1, 63, pp 69-75.

Abstract [Authors' English summary modified] Procedure, suitable for both experimental work and tank fermentation, is described for determining the respiration of X-68 strain of *S. aucrefaciens* ( $CO_2$  absorbed in barium hydroxide). Corn steep or a mixture containing amino acids, sucrose, and mineral salts were used as medium. Course and intensity of respiration found to depend on type of medium at growth phase, the curve showing 2 or 3 characteristic maxima. A curve of 2 combined cultures, one 12-hrs older than the other, resembled the curve obtained by superimposing curves from the cultures shifted by a half-phase and had no maxima. The 17 references are about equally divided between East and West.

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**POLAND**

DOBROJSKA, Krystyna and OSTROWSKA, Basuta, Biological Antibiotic Control Laboratory (Pracownia Biologicznej Kontroli Antybiotykow), Drug Institute (Instytut Lekow) in Warsaw

"Separation and Testing of Biologically Active Substances From Mixtures of Chloramphenicol and Oxytetracycline."

Warsaw, *Medycyna Doswiadczenia i Mikrobiologia*, Vol 15, No 1, 63, pp 77-85.

Abstract: [Authors' English summary modified] Conditions and procedures are given for the extraction and separation of chloramphenicol and oxytetracycline-hydrochloride from capsules containing both, and for the determination of their purity and percentage compositions. Authors used strains of *Sarcina lutea* 9341 ATCC and *B. cereus* 8145 to determine the amount of the 2 antibiotics and discuss the problems connected with combining chloramphenicol with antibiotics of the tetracycline group, and with conditions of extracting and testing the antibiotics. Of the 26 references, 5 are Polish, and the others Western.

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POLAND

DESPERAK-MASIAZEK, Anna, JAKIMOWSKA, Krystyna, JANOWIEC, Mieczyslaw, KRYSICKA-DOCZKAL, Halina, PAWLICKOWSKI, Loszek, and VENULET, Jan, Department of Pharmacology (Zaklad Farmakologiczny), Drug Institute (Instytut Lekow) in Warsaw (Director: Doctor, Dr. J. VENULET)

"Chemotherapeutic and Pharmacologic Properties of Sodium Salts of M-Aminosalicylic Acid."

Warsaw, Medyczna Doswiadczenia i Mikrobiologia, Vol 15, No 1, 63, pp 83-90.

Abstract: [Authors' English summary] Investigations *in vitro* and *in vivo* revealed merely a weak action of the sodium salts of 5-aminosalicylic acid (NAS) upon tubercle bacilli, as well as on experimental tuberculosis in laboratory animals. When tested *in vitro*, NAS was similar in action but weaker than PAS. Both derivatives are less effective than isonicotinic acid hydrazide or Streptomycin. The toxicity of NAS is slightly higher than that of PAS preparations. All 6 references are by Polish authors (in 1 German, 1 French, and the rest in Polish publications or unpublished).

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POLAND

HOFFMANN, Bogdan, KAZANOWSKA, Wanda, KILCZEWSKI, Waldemar, and KRACH, Jadwiga, Clinic of Dermatology (Klinika Dermatologiczna), Clinic of Obstetrics and Gynecology (Klinika Położniczka i Chorób Kobiecych), and the Department of Hygiene (Zakład Higieny) of the AM [Akademia Medyczna, Medical Academy] in Białystok.

"Serological Diagnosis of Trichomonas Infection."

Warsaw, Medyczna Doswiadczenia i Mikrobiologia, Vol 15, No 1, 63, pp 91-99.

Abstract: [Authors' English summary modified] Using the CF test with Trichomonas antigen on human sera, the authors found the test specific and sensitive, and encouraging for further development of serological methods for diagnosis of this disease. They give materials and procedure, and a statistical analysis of their findings. Of the 13 references, 2 are Polish, 4 are German, and 7 are English.

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YUGOSLAVIA

Prof Dr M. DANILOVIC [Affiliation not given]

"Professor Dr. Mr. Ph. Sinisa Djaja."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 297-300.

Abstract: Biography - obituary of this pioneering Serbian medicinal chemist and toxicologist, 1887-1962; studied in Graz and Paris, wrote several textbooks, directed department of galenical pharmacy at the University of Belgrade School of Pharmacy. Portrait.

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YUGOSLAVIA

Dr Milica GORANOVIC [Affiliation not given]

"In Memory of Stevan Jakovljevic."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 300-302.

Abstract: Biography and obituary of this Serbian botanist and writer, who was professor of botany at the Belgrade University School of Pharmacy from its establishment in 1939. Member of the Serbian Academy of Arts and Sciences, died 1962. Portrait.

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YUGOSLAVIA

D. SOLDATOVIC and S. PETROVIC, Institute of Toxicological Chemistry of Faculty of Pharmacy (Institut za toksikološku hemiju, Farmaceutski fakultet) Belgrade.

"The Toxicologic Role of Trichlorethylene and its Determination in the Urine."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 303-307.

Abstract: Review of toxicologic and metabolic studies, report of method for determination of the trichloroacetic acid in urine, urine tests in 27 exposed workers from 3 Belgrade factories. Trichlorethanol was higher than trichloroacetic acid; duration of exposure changed the urinary concentration in the same person over various periods of time. Three tables; 3 German 2 French references.

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YUGOSLAVIA

Lj. POLJAKOVIC, J. ROŠIĆ and I. BERKES, Department of Biochemistry (Institut za Biokemiјu) School of Pharmacy (Farmaceutski Fakultet) Belgrade.

"Determination of Alkali-Resistant Hemoglobin."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 309-312.

Abstract [English summary modified]: Hemolysates of erythrocytes of unspecified number of healthy adults were 100% resistant to alkaline denaturation; all of 12 fetal (umbilical cord blood) hemolysates were susceptible to 50 to 70%. Mixing adult and fetal bloods gave results as anticipated except in the 1:4 ratio which gave high error rate. Method is considered reliable and fast enough for clinical use. Four tables, 5 references: 1 German thesis, 4 English.

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YUGOSLAVIA

P. LUKIC, M. GORUKOVIC, and N. KRSTIC, Department of Pharmacognosy (Institut za farmakognosiju) School of Pharmacy (Farmaceutski fakultet) Belgrade.

"Quality of Imported Teas (Theea folium) Used in Our Country."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 313-316.

Abstract [German summary modified]: Analysis of 6 Indian and 1 Soviet (Georgian) tea specimens marketed in Yugoslavia. All were more than adequate in complying with requirements of the Yugoslav Pharmacopeia (minimum caffeine 2%, maximum ashes 6%). Soviet tea had 2.8 caffeine, 20% aqueous extractive substances; Indian 3 to 4.8 caffeine, 26 to 33 extractives. Three tables, 3 Yugoslav, 2 German, 1 Soviet 1 Polish reference.

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YUGOSLAVIA

B. JAKIRKOVIC and M. MIHAJLOV, Institute for Medicinal Plant Research (Institut za ispitivanje lekovitog bilja) NR [Narodna Republika, National Republic] Serbia, Belgrade.

"Distribution and Quality of *Atropa belladonna* L. in Piroet region."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 317-325.

Abstract [English summary modified]: Analysis of 36 specimens of free-growing *Atropa belladonna* collected in 1959-1960 in heretofore unexplored valley around the city of Piroet. Occasional poisonings of animals and children occur; plant is relatively unknown to villagers. Alkaloid content is highest in roots (0.5%) and unripe berries, lowest in ripe berries (0.2%). Quality satisfies all pharmacopeial requirements. Branch tips have adequate alkaloidal content (0.3%) to make harvest thereof more economical than of leaves as done now. Nine tables; 4 Yugoslav 1 Polish 1 Swiss 1 British (mainly pharmacopeial) references.

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YUGOSLAVIA

M. STEVANOVIC [Affiliation not given]

"Determination of Cholinesterase in White Blood, Erythrocytes, Plasma and Brain Homogenate of Mice."

Belgrade, Arhiv za Farmaciju, Vol 12, No 3, 1962; pp 327-330.

Abstract [English summary modified]: Method based on pH-metry checking degree of acetylcholine breakdown to acetic acid in distilled water brought to pH 8 with phenolphthalein during 30 minutes;  $\pm 3\%$  accuracy, suitable for cholinesterase determination in blood, plasma, RBC and brain tissue homogenate of mice. Technical details are given. One US and 1 Yugoslav reference.

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YUGOSLAVIA

M. MARJANOVIC and Z. BLAGOJEVIC, Department of Pharmaceutical Chemistry (Institut za farmaceutsku hemiju) School of Pharmacy (Farmaceutski fakultet) Belgrade.

"Critical Study of Some Analytical Methods for Aminopyrine."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 330-340.

Abstract [French summary modified]: Review and comparative tests of 6 methods described in the literature: complexometry, non-aqueous titration and potentiometry, iodometry, gravimetry, picrate precipitation. Potentiometry in non-aqueous medium gives best over-all results; complexometry is best for small quantities (3-8 mg.); analysis of drug mixture is best by iodometry; non-aqueous titration or potentiometry without preliminary extraction. Equations, 12 tables; 1 Czech, 2 Soviet, 3 Romanian, 2 French theses, 1 Japanese; 19 Western ref's.

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**YUGOSLAVIA**

**M. BIRMANCIVIC [Affiliation not given]**

**"Statistical Principles in Evaluating Accuracy of Drug Dosage."**

**Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 340-344.**

**Abstract:** Review of basic principles of statistical calculations as used to obtain standard deviation and limits of probability in measuring accuracy of single-dose preparations such as tablets, capsules, suppositories etc.; number of specimens required, methods, equations. Two tables, 2 graphs; 3 Western references.

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**YUGOSLAVIA**

**M. LUKIC, Department of Drug Control (Odeljenje za kontrolu lekova) Pharmacy (Farmeka) of VMA (Vojno Medicinska Akademija, Military Medical College,) Belgrade.**

**"Stability of Chlorinated Lime."**

**Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 345-349.**

**Abstract:** Chlorinated lime of Yugoslav manufacture (factory in Jajce) was tested for loss of Cl during storage under various conditions. Main heretofore ignored factor that is of importance is ambiental temperature; least possible environmental temperature should be assured to minimize decomposition. Two graphs; 1 Soviet and 4 Western references.

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YUGOSLAVIA

M. NIKOLIC [Affiliation not given]

"Determination of Acidity and Basicity of Non-Aqueous and Partly Aqueous Solutions."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 349-355.

Abstract: Review of basic principles. Importance of solvent for strength of either basic or acid non-aqueous solutions; scales of acidity and basicity; electrodes and measuring apparatus. Two graphs, 3 diagrams; 5 Western references.

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YUGOSLAVIA

J. TUCAKOV [Professor of Pharmacognosy, School of Pharmacy, Belgrade.]

"New PhDs of the Pharmaceutical Sciences."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 359-357.

Abstract: Mainly a review of the doctoral dissertation by Milan G. MIRIC on "Chemical Composition of oils (glycerides, free fatty acids and non-saponifiable compounds) During the Course of Development and Ripening of Fruits and Seeds of Some Plants." Plants in question are *Zea mays*, *Quercus cerris*, *Cucurbita maxima*, *Prunus armenica* and *Juglans regia*. Thesis is 95 pages long, has 148-reference bibliography.

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YUGOSLAVIA

Dr Andrija D. MIKOVIC [Affiliation not given]

"Prof Dr Mr Jovan Tucakov New Corresponding Member of the Serbian Academy of Arts and Sciences in Belgrade."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 360-362.

Abstract: Biographical review of Prof TUCAKOV, first pharmacist to achieve such membership; aged 58; studied in Nancy and Brussels; Professor of Pharmacognosy and Director of Institute for Study of Medicinal Plants; traveled widely; 89 publications plus 11 monographs or books; international scientific con'ventions and memberships. Portrait.

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YUGOSLAVIA

J. TUCAKOV [for affiliation see above]

"Report of the School of Pharmacy in Belgrade, 1961/1962."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 363-373.

Abstract: Most comprehensive review of the annual meeting of the faculty, list of over 100 publications; data about the activity of the students and faculty throughout the academic year.

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YUGOSLAVIA

Z. DJORDJEVIC [Affiliation not given]

"Nineteenth Congress of the International Pharmaceutical Federation."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 373-378.

Abstract: Complete summary of this meeting held in Vienna September 1962; summary of all the sectional meetings and papers presented at these; history of the association and of past meetings; general comments.

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YUGOSLAVIA

J. MIKOV [Professor of Pharmacognosy, School of Pharmacy Belgrade]

"First Session of Professional Committee for the New Yugoslav Pharmacopoeia."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 378-379.

Abstract: Preparatory work for Pharmacopea Iugoslavica III. Description of organization, tasks, editorial assignments.

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YUGOSLAVIA

J. TUGAKOV and M. SOLDATOVIC [Affiliation not given]

"Research and Production of Medicinal Plants in the USSR."

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 382-384.

Abstract: Mainly data from the authors' study trip financed by UN Technical Aid Administration; very good description of VILAR (All-Union Institute for Medicinal and Aromatic Plants) in Moscow; .."medicinal plant research in the USSR is better organised than in the West because there is no narrow side-taking, none of the often sterile individualism which hampers research.."

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YUGOSLAVIA

Dr Andrija D. MIRKOVIC [Affiliation not given]

"From the History of Pharmacy in Serbia. The First Graduate Pharmacists in the Reconstructed Serbia. Mr Dimitrije Milutinovic (1833-1915.)"

Belgrade, Arhiv za Farmaciju, Vol 12, No 5, 1962; pp 384-385.

Abstract: This pioneering pharmacist had several pharmacies in the city of Belgrade, studied in Brno in Moravia and in Vienna; had high military position and by chance detected that retreating Turks had switched all labels on jars in their pharmacy in Nis dur'g the Serbian-Turkish war, putting the quinine label onto the strychnine jar etc., was active in many organizations.

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